The Effect of Diffuse Film Covers on Microclimate and Growth and Production of Tomato (*Solanum lycopersicum* L.) in a Mediterranean Greenhouse

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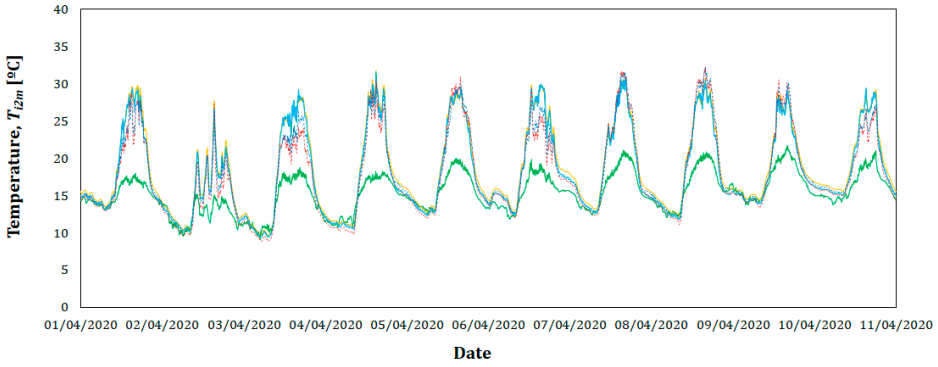
Table S1. Characteristics of all sensors used for the microclimate measurements.

Parameter	Sensor	Manufacturer	Rank	Accuracy
Outside climatic parameters measured at the weather station				
R_0—Outside solar radiation	Kipp Solari—MII	HortiMax B.V. (Maasdiijk, Holland)	±2000 W m^{-2}	±20Wm^{-2}
U_o—Wind speed	Anemometer—MII		0—40 m s^{-1}	±5%
θ_w—Wind direction	Vane Meteostation II		0—360°	±5°
T_e—Outside temperature	Pt1000 IEC 751 1/3B	Vaisala Oyj (Helsinki, Finland)	–25 to 75 °C	±0.2 °C
HR_e—Outside humidity	HUMICAP HMT100		0—100%	±2.5%
Data storage system	MultiMa Series II	HortiMax B.V.	Software Synopta	
Inside climate parameters measured by the climate control system				
T_i—Inside temperature	Pt1000 Class B—EE210	Eleltronik Ges. M.b.H. (Engerwitzdor, Austria)	–10 to 60 °C	±0.5 °C
HR_i—Inside humidity	EE210		0—100%	±2.3%
R_i—Inside solar radiation	Pyranometer SP-212	Apogee Instruments, Inc (Logan, USA)	0—2000 W m^{-2}	±5%
Inside climate parameters				
R_{Si}—Inside solar radiation	2× Pyranometers SP1110	Campbell Scientific Spain (Barcelona, Spain)	350—1100 nm	±5%
Q_{Si}—Inside PAR radiation	2 × SKP215 Quantum Sensor		400—700 nm	±5%
T_i—Inside air temperature	12 × HOBO® Pro Temp-HR U23-001	Onset Computer Corp. (Pocasset, USA)	–4 to 70 °C	±0.18 °C
HR_i—Inside relative humidiy			0—100%	±2.5%
T_i—Inside air temperature	12 × CS215 Sensirion SHT75	Sensirion AG. (Staefa, Swizerland)	–40 to 70 °C	±0.4°C
HR_i—Inside relative humidity			0—100%	±2%
T_C—Crop temperature	8 × Thermistances Betatherm 100K6A	Campbell Scientific Spain (Barcelona, Spain)	–5 to 95 °C	±0.16 °C
T_2—Soil temperature				
q_s—Heat flux in the soil	2 × HFP01	Hukseflux Thermal Sensors B.V. (Delft, Holland)	±2000 W m^{-2}	–15 to 5%
C_h—CO_2 concentration	LCi-SD photosynthesis analyser	ADC BioScientific Ltd. (Hertfordshire, UK)	0—2000 ppm	1 ppm



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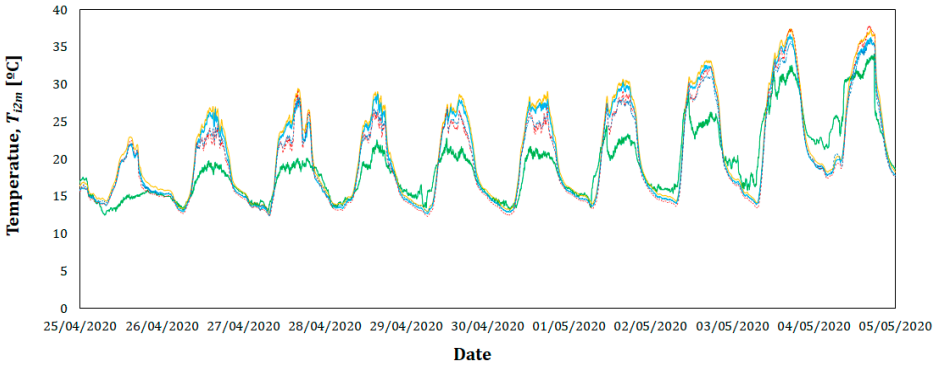

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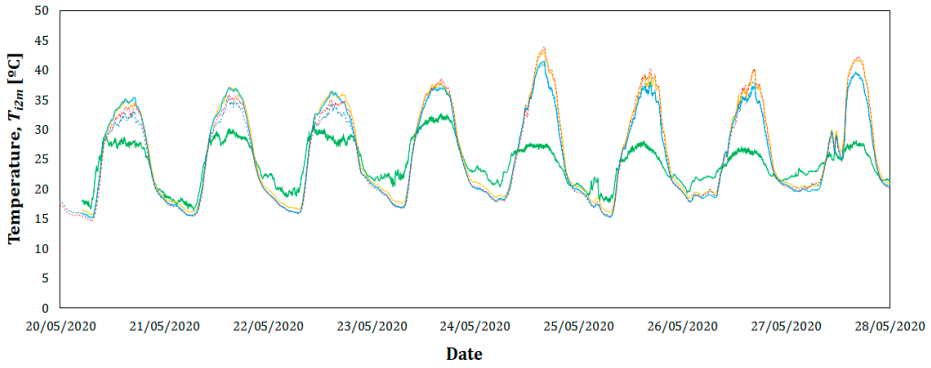

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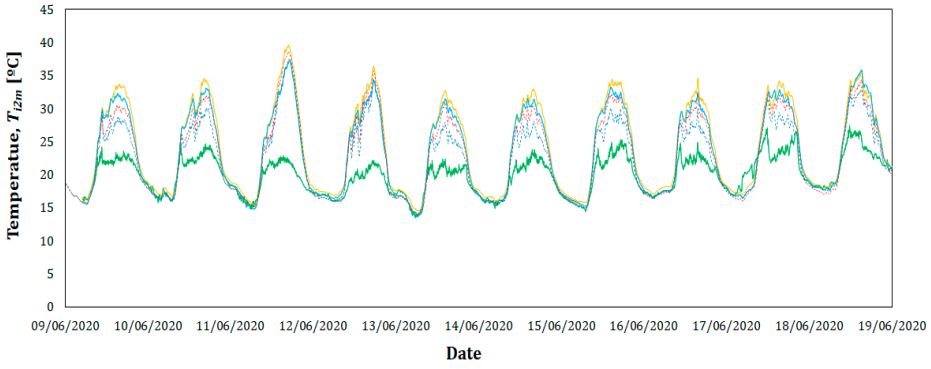
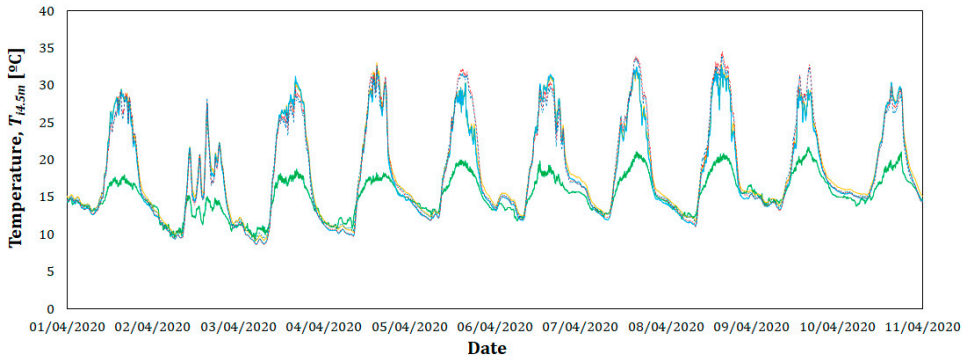


(d)

Figure S1. Evolution of the air temperature outside (——) and inside the East sector with diffuse commercial cover film on the North (——) and South (- - -) sides and inside the West sector with diffuse experimental cover film on the North (——) and South (- - -) sides at a height of 2 m above the floor.



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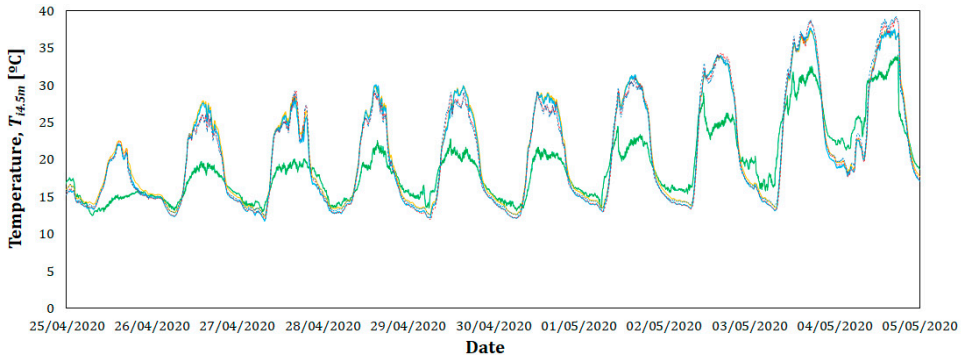

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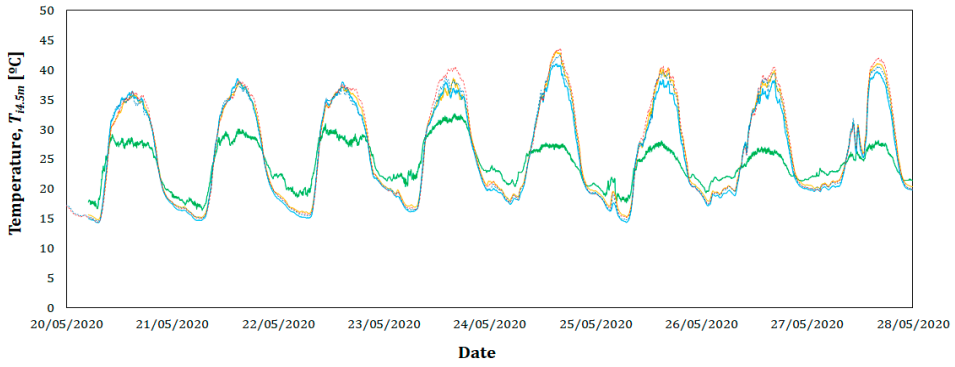

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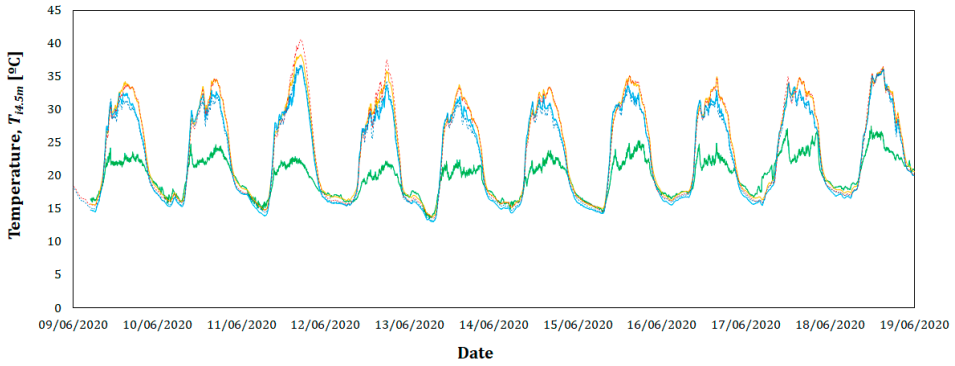
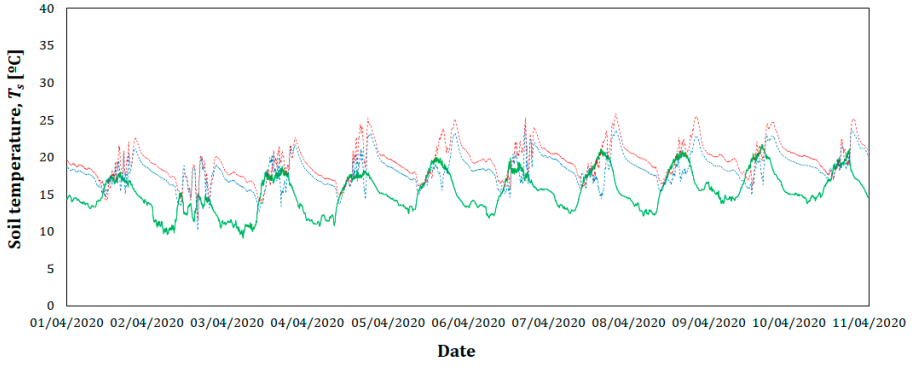


(d)

Figure S2. Evolution of air temperatures outside (——) and inside the East sector with diffuse commercial cover film on the North (——) and South (- - -) sides and inside the West sector with diffuse experimental cover film on the North (——) and South (- - -) sides at a height of 4.5 m above the floor.



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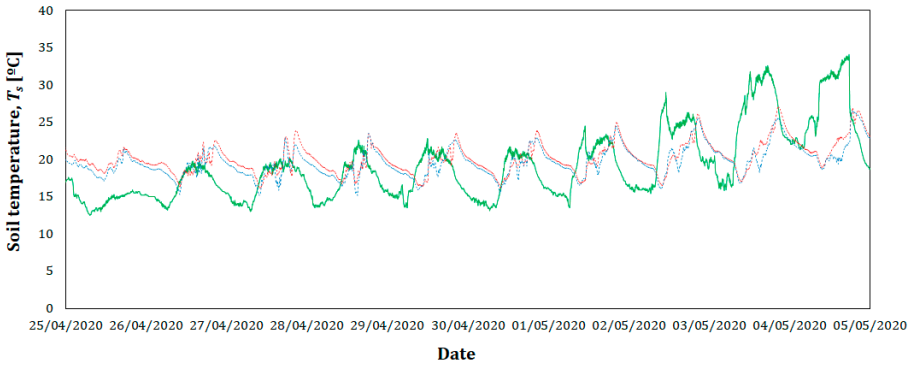

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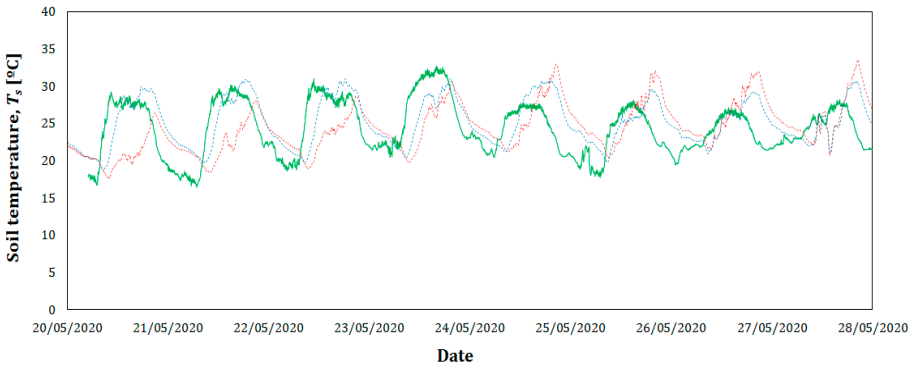

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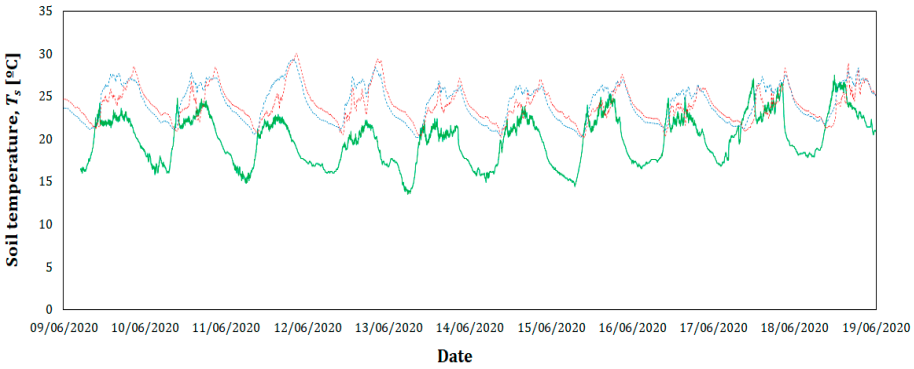

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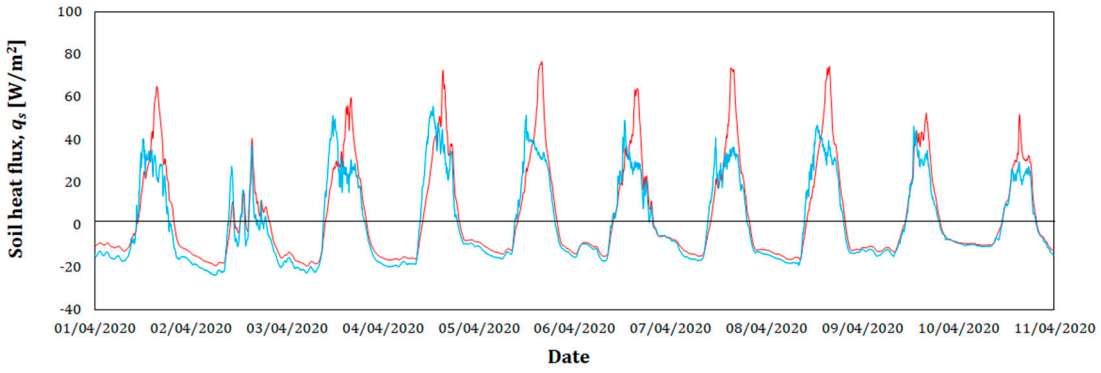
Figure S3. Evolution of the outside air temperature (——) and soil surface temperature in the center of the East sector with diffuse commercial cover film (- - -) and in the West sector with diffuse experimental cover film (- - -).



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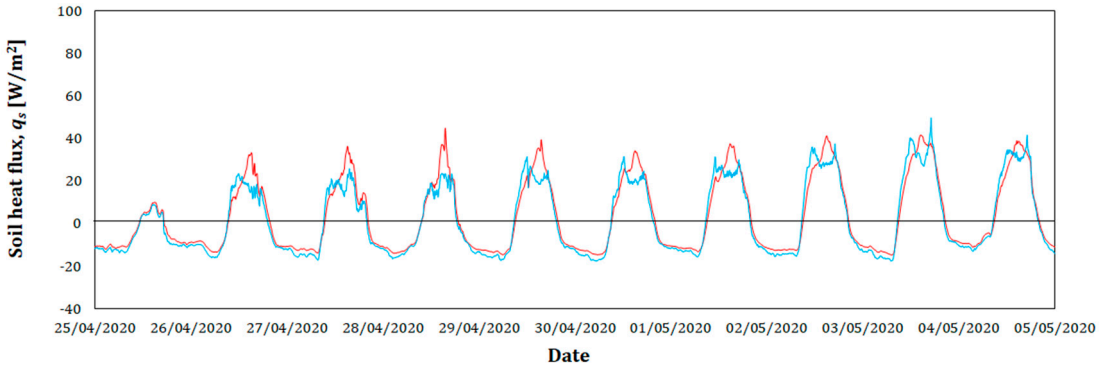

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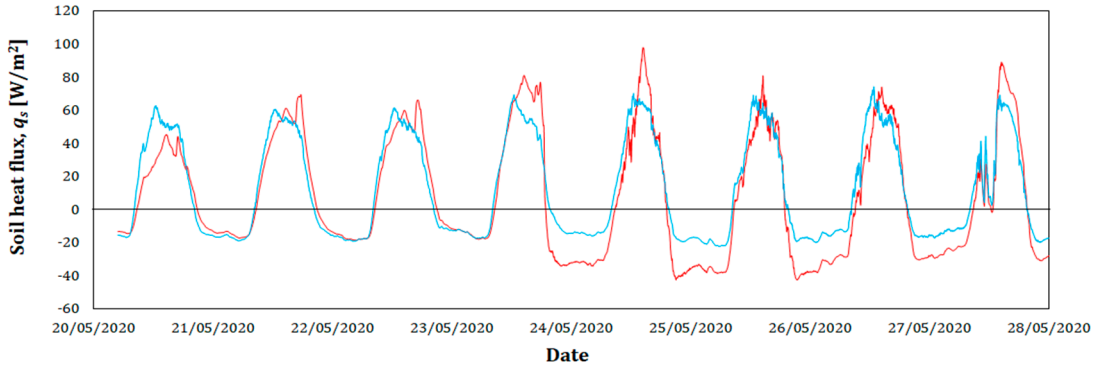

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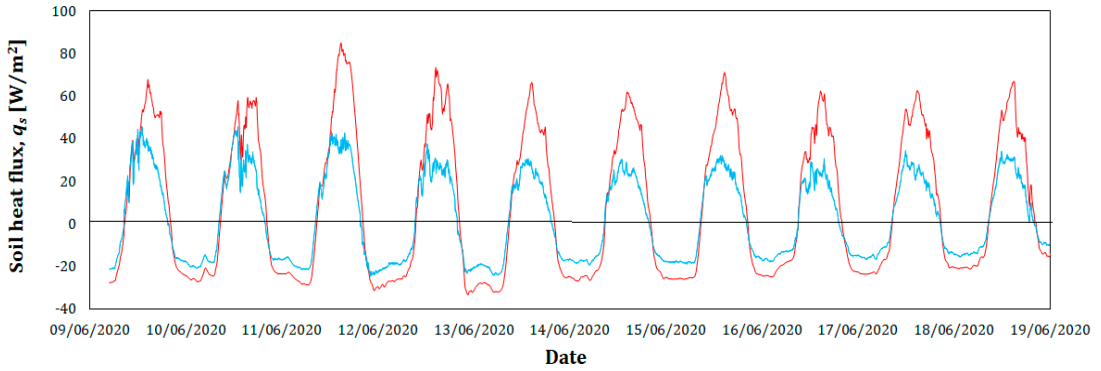
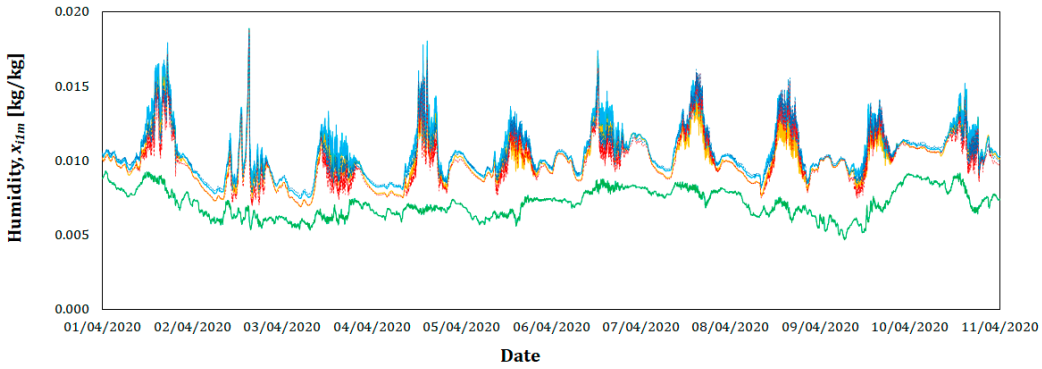


(d)

Figure S4. Evolution of the soil heat flux in the center of the East sector with diffuse commercial cover film (- - -) and in the West sector with diffuse experimental cover film (- - -).



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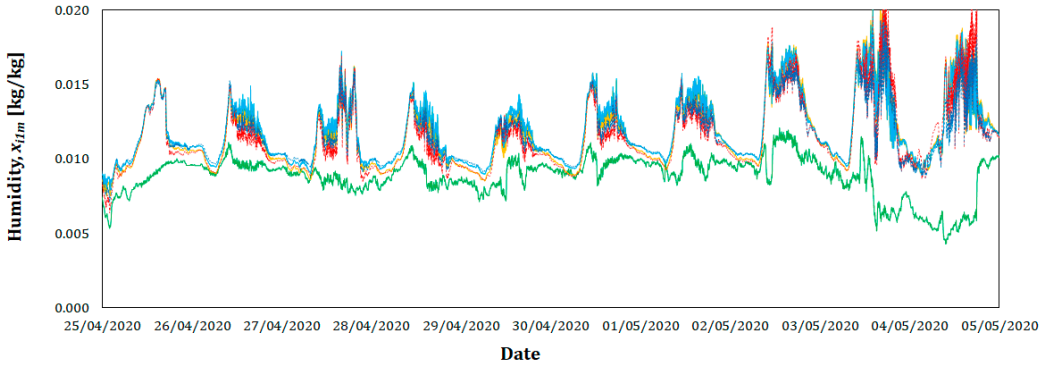

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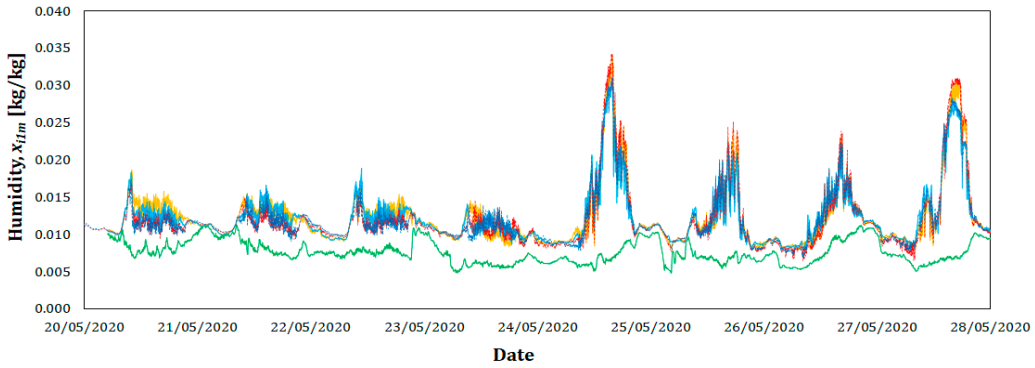

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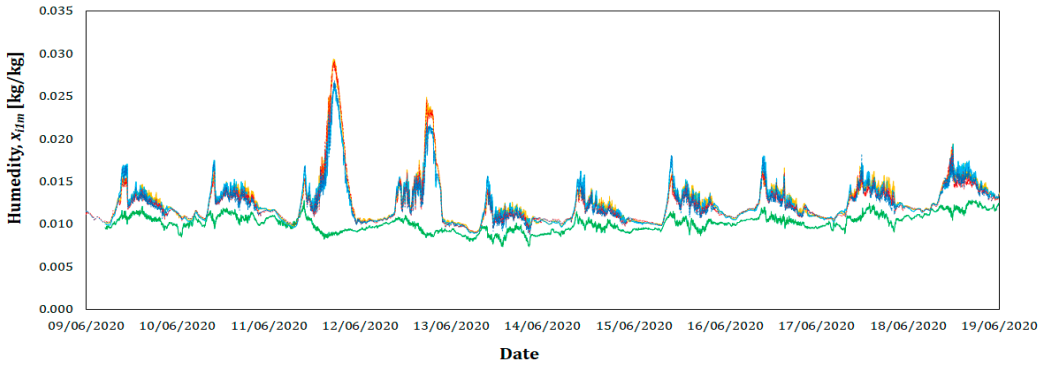


(d)

Figure S5. Evolution of the absolute humidity in the air outside (——) and inside the East sector with diffuse commercial cover film on the North (——) and South (- - -) sides and inside the West sector with diffuse experimental cover film on the North (——) and South (- - -) sides at a height of 1 m above the floor.

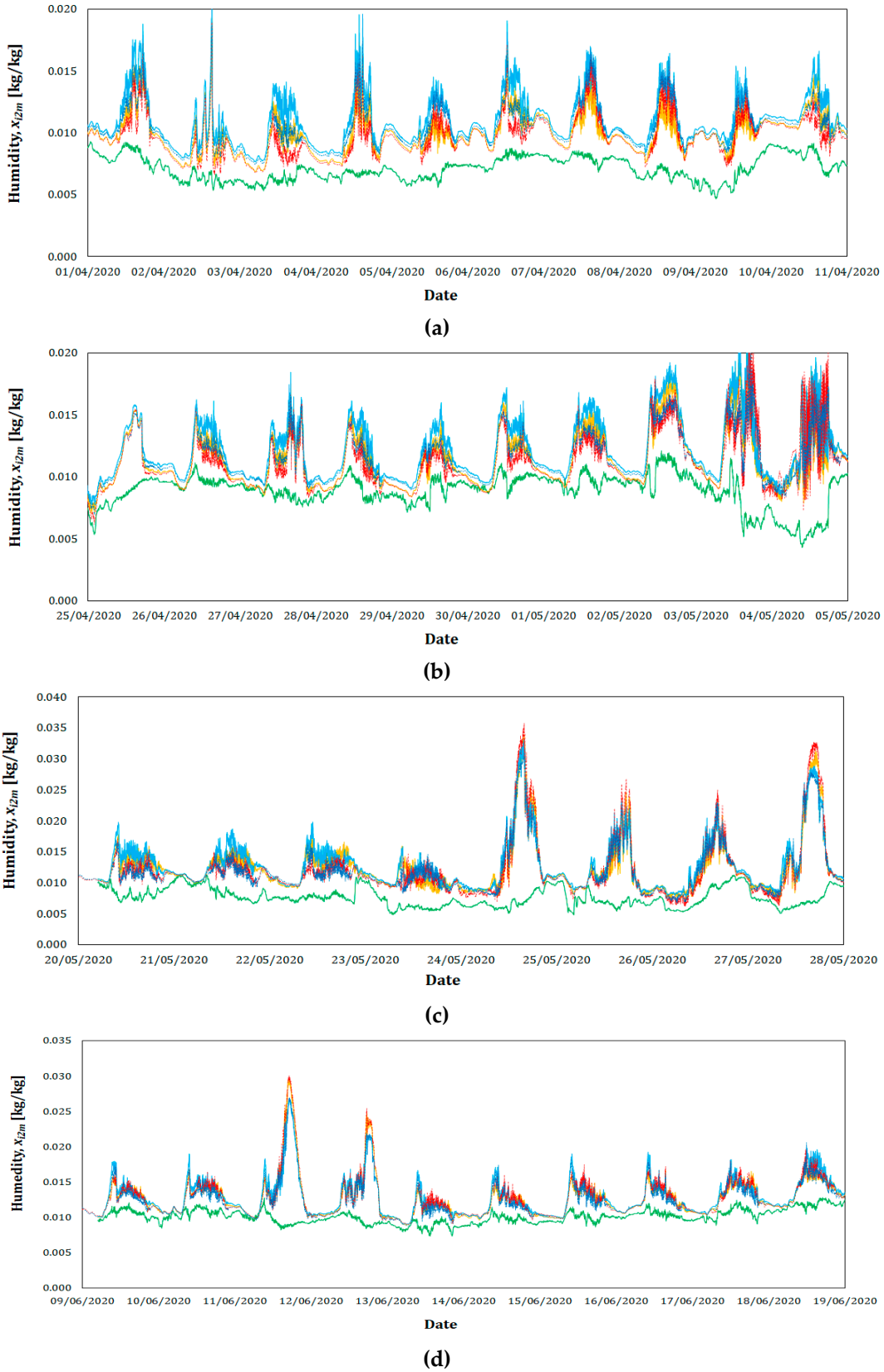
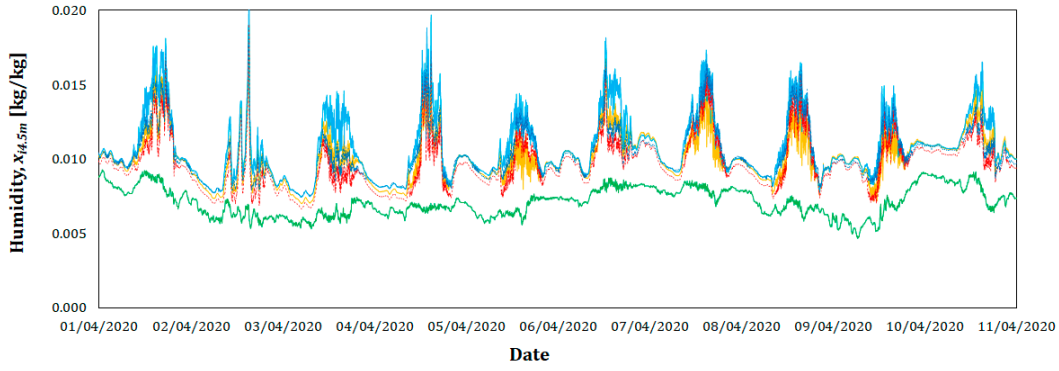


Figure S6. Evolution of the absolute humidity of the air outside (——) and inside the East sector with diffuse commercial cover film on the North (——) and South (- - -) sides and inside the West sector with diffuse experimental cover film on the North (——) and South (- - -) sides at a height of 2 m above the floor.



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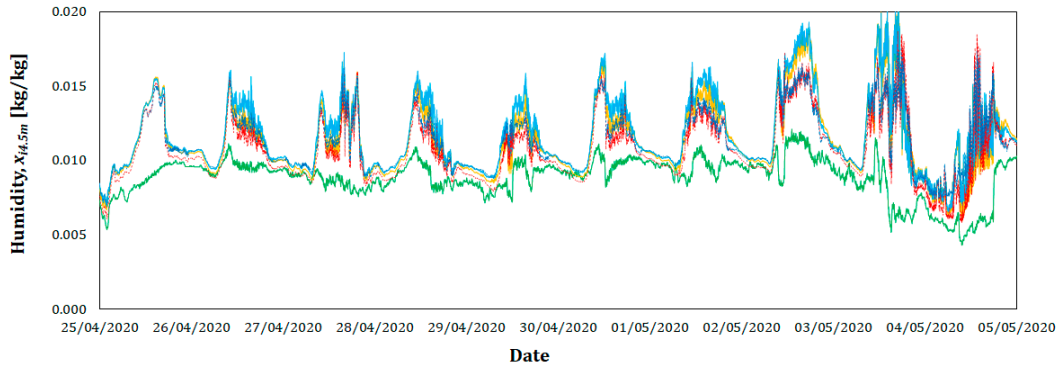

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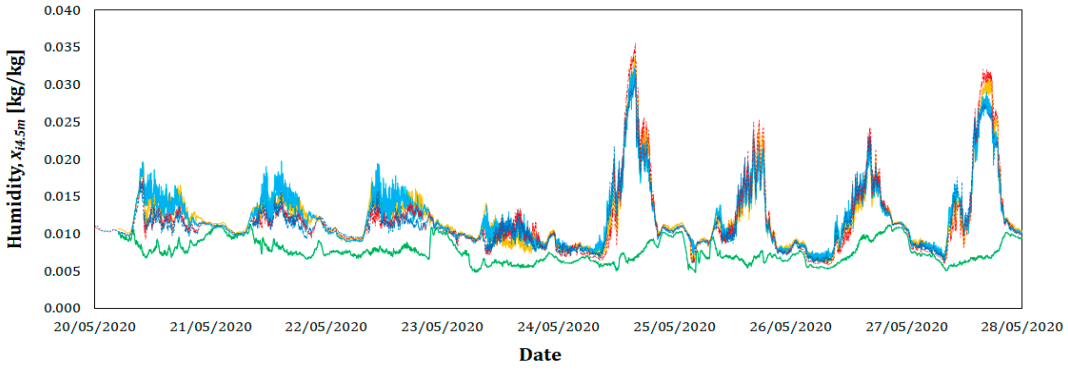

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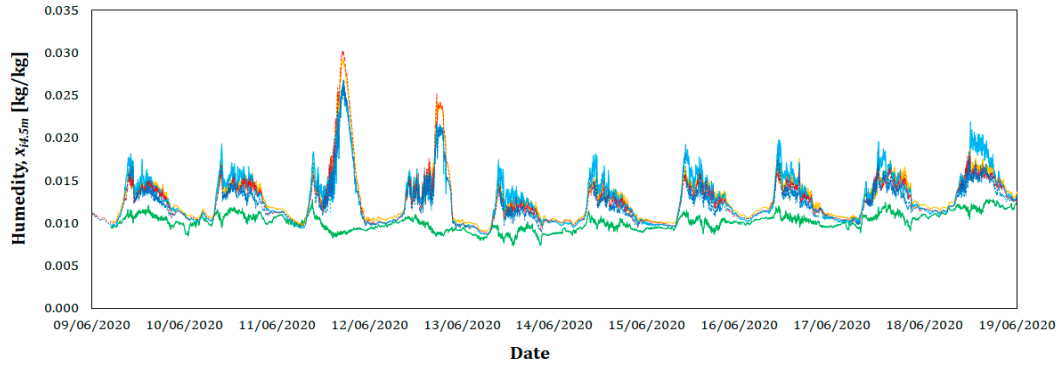

(d)

Figure S7. Evolution of the absolute humidity of the air outside (——) and inside the East sector with diffuse commercial cover film on the North (——) and South (- - -) sides and inside the West sector with diffuse experimental cover film on the North (——) and South (- - -) sides at a height of 4.5 m above the floor.

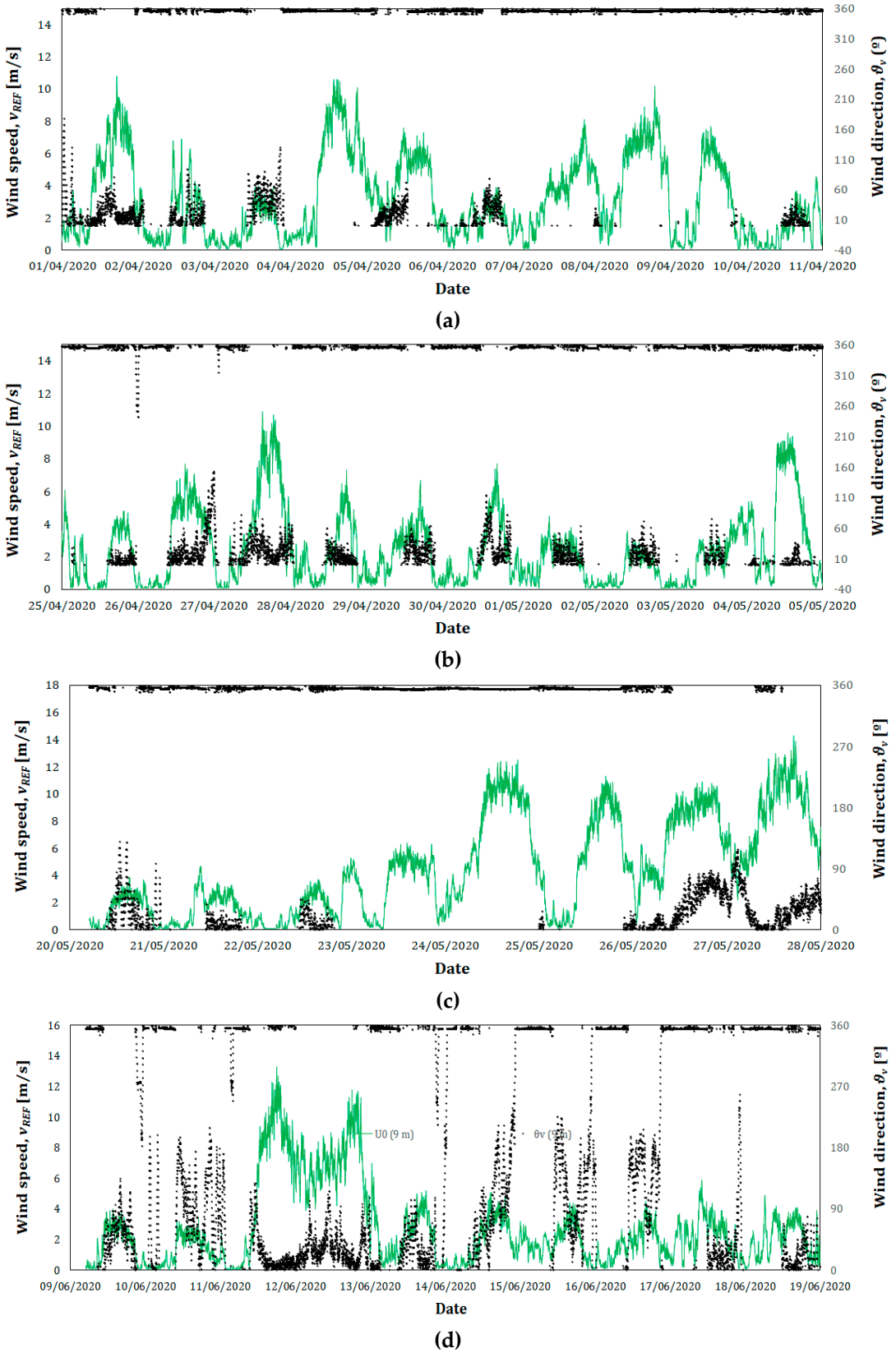

Figure S8. Evolution of the wind speed (—) and direction (—) at a height of 9 m above the floor.